

Tucannon Spring Creek Habitat Restoration and Tucannon Riparian Enhancement

Project description for cultural impacts –

The Tucannon Spring Restoration has few impacts that could affect cultural resources. The project location is completely within the existing channel. A culvert, located on the spring creek, approximately 100 m from the Tucannon River is currently a fish passage barrier. The project includes removing large rock and cobble from the upstream and downstream end of the culvert and hand placing natural wood elements and cobble to create two small “lift” pools below the culvert. The purpose of the “lift” pools is to backwater the culvert by an additional ~ 2-3 inches of stream flow. The work will mostly be done by hand, although the use of a mini-excavator may be required at the upstream end of the culvert. Approximately 700 meters of spring creek will be treated in the following manner:

Large wood pieces, a size that can be carried by two people will be placed throughout the spring to enhance available cover for fish and encourage pool formation. Some large cobble will be moved by hand to enhance pool depth and stream hydraulics associated with wood placement. Small ½ meter/sq holes will be dug adjacent to the spring and partially filled with soil/compost mix, rooted water birch, black cottonwoods, and dogwoods will be planted in the soil mixture and the capped with the native substrate. Temporary fencing will be placed around the trees to provide protection from browsing for 3-4 years to improve plant survival. The terminal end of the spring meanders through approximately 20 meters of a cobble bar deposited by the Tucannon River. The cobble bar is within the ordinary high water mark and is under water during less than bankfull flows that occur during winter and spring months. A large woody debris LWD structure or logjam will be constructed at the terminal end of the spring. The structure will be constructed in the cobble bar area and not in connection with the Tucannon River wetted perimeter. A large pool will be dug using a 160 series or larger excavator, excavation will occur from the bank, essentially in the dry. Key trees will be placed in the pool and partially buried to construct a foundation for the engineered log-jam, additional large wood and trees will be racked into the jam resulting in a large wood structure that extends upstream into the spring creek roughly 30 feet. The resulting pool and LWD will provide improved access for juvenile salmonids into the spring branch and winter habitat for salmonids in the Tucannon River. Winter habitat and off channel rearing opportunities are two major limiting factors for ESA listed salmonids in the Tucannon Basin, and have been identified as high priorities under the Snake River Salmon Recovery Plan. The area of the spring is in the Tucannon Flood plain and has some car bodies and general junk (i.e. washing machines, freezers) that will be removed and transported for recycling. The junk will be removed, leveled and planted with native trees and shrubs. Considering the limited disturbance from excavation, and that those disturbances will occur within the existing channel with transitional substrates, the project sponsor is requesting an exemption or no effect determination for cultural impacts.

Maps and GPS points for the spring restoration attached.

The Tucannon Riparian Enhancement Project involves impacts that may have an effect on cultural resources, mainly because the project includes excavating irregular shaped (~ 10 m/sq) plots up to 2 feet deep. The project is designed to establish riparian growth on the Southwest bank of a newly established channel of the Tucannon River in the Washington State Wooten Wildlife Area. The plots will be filled with a soil/compost mixture and planted with native trees and shrubs (a combination of rooted stock and

cuttings) and capped with the native substrate. The plots will be partially filled with soil/compost; therefore there will be excess native substrate that will be spread level to the riparian plots. The plots will be temporarily fenced to protect young trees from excessive browsing. Some of the project area was ripped and planted with Black Cottonwood stakes in the past; there is still visible evidence of that activity (project was implemented maybe 15 years ago), although the project was not successful in establishing the trees. The access to the current project begins at the aforementioned (old riparian project) disturbed area and has one of the new riparian plots located in it. There are 9 riparian plots designated for the project that run adjacent to an old river channel that was recaptured in the winter 2008-9. The recaptured channel does not have much riparian growth adjacent to it, and it is located in a stream reach that was badly burned in the 2005 School Fire. The project is intended to enhance riparian along the new channel for improved shade, bank stability, and habitat. The project sponsor is interested in establishing a cultural survey and a cultural resource recommendation by October 2009. Construction of the project will be done outside of the rivers ordinary high water mark.

Maps and GPS points for the project attached.